



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,706	10/01/2001	Jeroen Johannes Gerardus Van Soest	BO-42044-JGD	7041

466 7590 03/28/2003

YOUNG & THOMPSON
745 SOUTH 23RD STREET 2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

HAILEY, PATRICIA L

ART UNIT	PAPER NUMBER
----------	--------------

1755

DATE MAILED: 03/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/869,706

Applicant(s)

VAN SOEST ET AL.

Examiner

Patricia L. Hailey

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1755

Applicants' Preliminary Amendment, filed on October 1, 2001, has been made of record and entered. In this amendment, claims 3, 4, 6-8, and 11-14 have been amended to eliminate multiple claim dependency, and new claim 15 has been added.

Claims 1-15 are now pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 5, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is indefinite because it depends from itself, i.e., "Method according to Claim 2".

4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation "an HLB value of 8 to 20", and the claim

Art Unit: 1755

also recites "preferably of 10 to 15", which is the narrower statement of the range/limitation.

Additionally, claim 13 recites the broad recitation "starch content in the first phase is 1-50% (m/m)", and the claim also recites "preferably 5 to 25% (m/m)", which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-15 are rejected under 35 U.S.C. 102(a) as being anticipated by European Patent No. 900,807 (hereinafter the "European Patent"), Applicants' submitted art.

The European Patent teaches a process for producing a water-absorbing polymer, comprising the steps of modifying and treating a starch in a co-continuous water-oil or oil-water system. See paragraph [0009] of the European Patent.

The starch employed in this process may be a native starch, or may be a modified starch. Crosslinking is performed via crosslinking agents such as trisodium trimetaphosphate (TSTP) and epichlorohydrin. See paragraphs [0010]-[0011] of the European Patent.

The co-continuous system comprises a hydrophobic liquid such as an oil, which is present in a volume ratio of oil to water of between 10:1 and 1:5. See paragraph [0012] of the European Patent.

Emulsifiers may also be employed in the co-continuous phase; examples of these include fatty acid monoglycerides (surfactants). The amount of the emulsifier can be from 0.01 to 10 wt. % with respect to the total mixture of starch, water, oil, and emulsifier. See paragraph [0013] of the European Patent.

Art Unit: 1755

To perform the process, an aqueous suspension of the starch (4 to 60 wt. % starch) is admixed with the crosslinking agent and the oil phase at a reaction temperature between 0 and 100°C, as well as reaction conditions chosen to obtain the desired distribution of aqueous phase and oil phase. The starch may be gelatinized during or before crosslinking. See paragraph [0014] of the European Patent.

After crosslinking, the oil phase is removed via extraction with a solvent such as ethanol or acetone. See paragraph [0016] of the European Patent.

In view of these teachings, the European Patent anticipates claims 1-15.

7. **Claims 1-5, 7, 8, 12, and 13 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99/01214, Applicants' submitted art.**

WO 99/01214 teaches a process for preparing microparticles wherein an oil-in water emulsion containing starch is prepared, and a crosslinking agent and a surfactant are added to the emulsion. See claims 1-10 of WO 99/01214.

To prepare the emulsion, an oil or another hydrophobic substance is added to an aqueous phase of starch (5 to 50 % by weight). Also, a soap or another surfactant (in an amount between 0.25 and 5 wt. %, with respect to the water volume), which promotes the formation of an oil-in-water emulsion, maybe added to the aqueous phase of starch prior to addition of the hydrophobic phase. See page 3, lines 5-27 of WO 99/01214.

After the oil-in-water emulsion is obtained, it is dispersed in a hydrophobic phase to prepare a particulate material and thus obtain an oil-in-water-in-oil emulsion. A soap or another surfactant may also be added to this phase to obtain a solid-in-water-in-oil emulsion. Next, crosslinking takes place, with the addition of a crosslinking agent such as epichlorohydrin or trisodium trimetaphosphate. See page 3, line 32 to page 4, line 30 of WO 99/01214, which also teaches that the starch may be completely or partially gelatinized and crosslinked after emulsification (page 4, lines 10-11).

In view of these teachings, WO 99/01214 anticipates claims 1-5, 7, 8, 12, and 13.

Art Unit: 1755

8. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

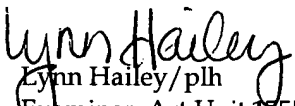
Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (703) 308-3317. The examiner can normally be reached on Mondays-Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (703) 308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.


Lynn Hailey/plh
Examiner, Art Unit 1755
March 21, 2003


Mark L. Bell
Supervisory Patent Examiner
Technology Center 1700